[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 23541 5/9/2001]

[Docket No. 2001-NE-08-AD; Amendment 39-12224; AD 2001-09-17]

RIN 2120-AA64

Airworthiness Directives; CFM International (CFMI) CFM56-5C Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an emergency airworthiness directive (AD) that was sent previously to all known U.S. owners and operators of CFMI CFM56-5C turbofan engines by individual letters. That action required within 10 days after receipt of that emergency AD, an initial inspection of the fuel manifold for wear or chafing; and an initial inspection of the CJ9L harness for correct installation, for clamp wear and to verify a minimum clearance between the CJ9L harness and the fuel manifold. That action also required repetitive inspections of the fuel manifold, clamps, and the CJ9L harness within every 500 hours time in service until new configuration clamps are installed on the harness. This amendment requires the same inspections, and adds inspection requirements for the manifold, clamps, and the CJ10L harness, and clamps on the other side of the engine. The actions specified in this AD are intended to prevent fuel leakage on the hot section or in the primary fire zone of the engine which may result in an engine fire and subsequent damage to the airplane.

DATES: Effective May 14, 2001. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of May 14, 2001.

Comments for inclusion in the Rules Docket must be received on or before July 9, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-NE-08-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. The service information referenced in this AD may be obtained from CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2981, fax (513) 552-2816. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7152; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: On April 10, 2001, the Federal Aviation Administration (FAA) issued emergency airworthiness directive (AD) 2001-08-51, applicable to CFMI CFM56-5C turbofan engines, which requires within 10 days after the receipt of that AD, an initial inspection of the fuel manifold

for wear or chafing; and an initial inspection of the CJ9L harness for wear and correct installation, for clamp wear and to verify a minimum clearance between the CJ9L harness and

the fuel manifold. Repetitive inspections of the fuel manifold, clamps, and CJ9L harness are also required within every 500 hours time-in-service until the new configuration clamps are installed on the harness. That AD was prompted by a report of a significant engine fuel leak under the thrust reverser cowls at the fuel manifold level on a CFMI CFM56-5C turbofan engine that was installed on an Airbus Industrie A340 airplane. The leak was confirmed to be coming from a hole in the fuel manifold pigtail. The hole was a result of interference and chafing between the CJ9L harness high pressure turbine clearance control (HPTCC) sensor lead and fuel manifold. This was the second fuel leak event at this location. Additional engine inspections by the operator who experienced the engine fuel leak discovered two other engines exhibiting interference of the CJ9L harness with fuel manifold and chafing of the fuel manifold. In addition, since the FAA issued the emergency AD, chafing was found on the CJ10L harness, located on the other side of an engine from the CJ9L harness. The investigation has identified three causes for lack of clearance between the HPTCC harnesses and the fuel manifold:

(1) Incorrect routing of the CJ9L and CJ10L harnesses,

(2) Incorrect orientation of the CJ9L and CJ10L harness cushion clamps, and

(3) Wear of the silicone material in the clamp which allows the harnesses to move within the clamp. This clamp material is used on older configuration clamps. The later configuration uses a metallic material.

The actions specified by this AD are intended to prevent fuel leakage on the hot section or in the primary fire zone of the engine, which may result in an engine fire and subsequent damage to the airplane.

Since emergency AD 2001-08-51 was issued, it has been determined that the same unsafe condition exists at the CJ10L HPTCC harness, located on the opposite side of the engine from the CJ9L harness.

Manufacturer's Service Information

The FAA has reviewed and approved CFMI Alert Service Bulletin (ASB) No. CFM56-5C S/B 73-A0106, Revision 1, dated April 19, 2001, that specifies procedures for inspection of the fuel manifold for wear or chafing, and inspection of the CJ9L harness for wear and correct installation, for clamp wear and to verify a minimum clearance between the CJ9L harness and the fuel manifold.

Differences Between This AD and the Manufacturer's Service Information

CFMI ASB CFM56-5C S/B 73-A0106, Revision 1, dated April 19, 2001, requires only inspections of the CJ9L HPTCC sensor harness. The FAA has determined that the same inspections must be performed on the CJ10L HPTCC sensor harness, located on the opposite side of the engine from the CJ9L harness.

FAA's Determination of an Unsafe Condition and Proposed Actions

Although none of these affected engine models are used on any airplanes that are registered in the United States, the possibility exists that the engine models could be used on airplanes that are registered in the United States in the future. This AD is being issued to prevent fuel leakage on the hot section or in the primary fire zone of the engine, which may result in an engine fire and subsequent damage to the airplane. This AD requires within 10 days after the effective date of this AD, an initial inspection of the fuel manifold for wear or chafing; and an initial inspection of the CJ9L and CJ10L harnesses for wear and correct installation, for clamp wear and to verify a minimum clearance between the harnesses and the fuel manifold. Repetitive inspections of the fuel manifold, clamps, and the CJ9L and CJ10L harnesses will be required within every 500 hours time in service until the new configuration clamps are installed on the harness. The actions must be done in accordance with the service bulletin described previously.

Immediate Adoption of This AD

Since there are currently no domestic operators of this engine model, notice and opportunity for prior public comment are unnecessary. Therefore, a situation exists that allows the immediate adoption of this regulation.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NE-08-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive, Amendment 39-12224, to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation Administration

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-09-17 CFM International: Amendment 39-12224. Docket 2001-NE-08-AD. Supersedes AD 2001-08-51.

Applicability

This airworthiness directive (AD) is applicable to CFM International (CFMI) CFM56-5C turbofan engines. These engines are installed on, but not limited to, Airbus Industrie A340 airplanes.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance is required as indicated unless already done.

To prevent fuel leakage on the hot section or in the primary fire zone of the engine, which may result in an engine fire and subsequent damage to the airplane, do the following:

Initial Inspection Requirements

(a) Within 10 days after the effective date of this AD, do the following:

(1) Inspect the fuel manifold on both sides of the engine for serviceability, and disposition in accordance with paragraphs 3.A. through 3.A.(3) of CFMI ASB CFM56-5C S/B 73-A0106, dated April 19, 2001.

(2) Visually inspect harnesses CJ9L and CJ10L for wear. If the wire braid is worn through (pierced), replace the harness within 3,000 hours time-in-service after the first inspection where the wire braid is found to be pierced.

(3) Visually inspect and, if necessary, correct the bracket and clamp locations for the CJ10L harness in accordance with paragraphs 3.C. through 3.C.(5) of the Accomplishment Instructions of CFMI ASB CFM56-5C S/B 73-A0106, dated April 19, 2001.

Repetitive Inspections.

(b) Thereafter, repeat the actions required by paragraph (a) of this AD at intervals not to exceed 500 hours time-since-last-inspection.

Terminating Actions

(c) Replacement of existing clamps (red and brown silicon) at details R, and S of CJ9L and detail S, R, and Q of CJ10L with new clamp (metallic) part number 649-412-351-0 and at detail Q of CJ9L with new clamp 649-412-354-0 constitutes terminating action for the repetitive inspection requirements of paragraph (b) of this AD.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Documents That Have Been Incorporated By Reference

(f) The inspections shall be done in accordance with CFM International Alert Service Bulletin CFM56-5C S/B 73-A0106, Revision 1, dated April 19, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2981, fax (513) 552-2816. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in DGAC airworthiness directive N T2001-145 (B) Revision 1.

(g) This amendment becomes effective on May 14, 2001.

FOR FURTHER INFORMATION CONTACT: James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7152; fax (781) 238-7199.

Issued in Burlington, Massachusetts, on May 3, 2001.
Francis A. Favara, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.